

LISTING OF THE CLAIMS

The following listing of claims replaces all prior listings and versions of claims in the application:

1. (Currently Amended) A flanged member configured to be included as a first flanged member in a flanged joint in a pressure equipment device, the flanged joint comprising the first flanged member and a corresponding second flanged member with a second flanged end having a second end surface, said first flanged member comprising:

a first flanged end with a first end surface configured to face the second end surface of the second flanged end of the second flanged member of said flanged joint, said first end surface comprising a first load transferring surface through which forces are transferred when assembled together with said corresponding second flanged member, ~~an entirety of the first load transferring surface positioned and configured to face the second end surface;~~

at least a portion of said first load transferring surface in an unstressed condition being concave in a radial direction, such that said at least the portion of said first load transferring surface is curved and defined by a concave curve function,

wherein said first load transferring surface is concave in the radial direction over at least an area that is subjected to deformation when the first flanged member is assembled together with said second flanged member, and in the unstressed condition, any first point on the at least the portion of said first load transferring surface and any second point of the at least the portion of said first load transferring surface directly distal to the first point meet a plane inclined in the radial direction of said first flanged member,

wherein said load transferring surface has an outermost abutment point in a cross section of the first flanged member, the outermost abutment point configured to abut against the second end surface of the second flanged member when assembled together with said corresponding second flange member, the outermost abutment point being the abutment point situated farthest in the radial direction from the central axis of the first flanged member,

said load transferring surface has an innermost abutment point in a cross section of the first flanged member, the innermost abutment point configured to abut against the second end surface of the second flanged member when assembled together with said corresponding second

flange member, the innermost abutment point being the abutment point situated nearest in the radial direction from the central axis of the first flanged member; and

a boring passing through the first end surface at a radial distance from a central axis of the first flanged member greater than the radial distance from the central axis of the first flanged member to the innermost abutment point, and less than the radial distance from the central axis of the first flanged member to the outermost abutment point,

wherein the first load transferring surface of the first flanged member faces the load transferring surface of the second flanged member before assembly and is inclined in the radial direction outwards to form an angle in radial cross-section, the angle being such that a distance between the two load transferring surfaces increases in the radial direction outwards, said inclined load transferring surfaces being concave.

2. (Previously Presented) The flanged member according to claim 1, wherein said first load transferring surface is concave over the entire extension thereof in the radial direction.

3. - 4. (Canceled)

5. (Previously Presented) The flanged member according to claim 1, wherein said first load transferring surface comprises a varyingly concave surface in the radial direction.

6. (Previously Presented) The flanged member according to claim 1, said first flanged member further comprising an internal axial through opening, said first load transferring surface having said innermost abutment point configured to abut against the corresponding second end surface of said second flanged member, said abutment point being situated nearest in the radial direction, to said opening, the concavity of the first load transferring surface extending all the way in to said abutment point.

7. (Previously Presented) The flanged member according to claim 1, wherein said first load transferring surface has said innermost abutment point configured to abut against the corresponding second end surface of said second flanged member at an internal axial through opening of said second flanged member, said innermost abutment point being situated nearest in

the radial direction, to said opening, the concavity of the first load transferring surface extending all the way in to said abutment point.

8. (Previously Presented) The flanged member according to claim 1, wherein a conceived straight line that connects said proximal point of said first load transferring surface, in the radial direction, with said distal point thereof, in the radial direction, has a length Lx and the concavity of said first load transferring surface has a maximum depth Dk in relation to a conceived plane surface produced by said line, which depth Dk is of the order of 0.01 %–2 % of Lx.

9. (Canceled)

10. (Previously Presented) The flanged member according to claim 1, wherein at least a part of a transition area, between a surface of the first flanged end directed away from said first end surface and a part of the first flanged member that is substantially parallel to a longitudinal axis of the first flanged member, is shaped as a substantially elliptical area.

11. (Currently Amended) A joint comprising a first flanged member and a second flanged member adapted for a pressure equipment device, said first and second flanged members each comprising:

at least one flanged end having an end surface comprising a load transferring surface through which forces are transferred when connecting together said first and second flanged members in an assembled state, ~~such that in the assembled state an entirety of said each load transferring surface faces the other load transferring surface,~~

wherein, for the first flanged member, at least a portion of the load transferring surface in an unstressed condition is concave in a radial direction, such that the at least the portion of the load transferring surface is defined by a concave curve function, said load transferring surface is concave in the radial direction over at least an area that is subjected to deformation when the first flanged member is assembled together with said second flanged member, and any first point on the at least the portion of said load transferring surface and any second point of the at least the

portion of said load transferring surface directly distal to the first point meeting a plane inclined in the radial direction of said first flanged member,

wherein said load transferring surface has an outermost abutment point in a cross section of the first flanged member, the outermost abutment point configured to abut against the end surface of the second flanged member when assembled together with said corresponding second flange member, the outermost abutment point being the abutment point situated farthest in the radial direction from the central axis of the first flanged member,

said load transferring surface has an innermost abutment point in a cross section of the first flanged member, the innermost abutment point configured to abut against the end surface of the second flanged member when assembled together with said corresponding second flange member, the innermost abutment point being the abutment point situated nearest in the radial direction from the central axis of the first flanged member; and

a boring passing through the end surface of the first flanged member at a radial distance from a central axis of the first flanged member greater than the radial distance from the central axis of the first flanged member to the innermost abutment point, and less than the radial distance from the central axis of the first flanged member to the outermost abutment point,

wherein the load transferring surface of the first flanged member faces the load transferring surface of the second flanged member before assembly and is inclined in the radial direction outwards to form an angle in radial cross-section, the angle being such that a distance between the two load transferring surfaces increases in the radial direction outwards, said inclined load transferring surfaces being concave.

12. (Previously Presented) The joint according to claim 11, wherein the first and second flanged members each have a concave load transferring surface.

13. (Canceled)

14. (Previously Presented) The flanged member according to claim 5, wherein said concave surface has more than one radii of curvature.

15. (Previously Presented) The flanged member according to claim 1, wherein the first load transferring surface is configured to contact directly said second end surface.

16. (Previously Presented) The joint according to claim 11, wherein said load transferring surfaces of each of the first and second flanged members is configured to directly contact the load transferring surface of the remaining flanged member.

17. (Previously Presented) The flanged member according to claim 1, wherein the at least the portion of the first load transferring surface in the unstressed condition that is concave comprises a majority of the first load transferring surface.

18. (Previously Presented) The flanged member according to claim 1, wherein the second flanged member is identical with the first flanged member.